

CLAIMS

1.- A fabrication process for a section (11) of an offshore oil production platform support leg (2) member (10), the member (10) comprising a main plate (12) incorporating, on at least one longitudinal edge, teeth (14) forming a rack and at least one stiffener of semicylindrical shape welded to a main surface (12A) of the main plate (12) along two longitudinal edges (16),
5 the stiffener (13) and the plate (12) delimiting a conduit (17), characterized in that it includes the following stages applied to at least one part of the length of the member (10):

a) machining of each longitudinal edge (16) of the stiffener (13) to form, along the longitudinal edge (16), a lip (18) for bearing on the main surface (12A) of the main plate (12) by forming, along the longitudinal edge (16), an external bevel (20) on the side opposite the conduit (17);
15

b) applying a sole (22) of the bearing lip (18) to the main surface (12A) of the plate (12);
20

c) heating the bearing lip (18) to ensure its welding to the plate (12) and to form a bearing weld (78); and

d) with filler metal, forming a weld bead (80) from outside the conduit (17) within the space defined between the bearing weld (78), the external bevel (20) and the main surface (12A) of the main plate (12).
25

2.- The process as claimed in claim 1, characterized in that the heat supply causing heating of the bearing lip (18) for the purpose of welding it to the plate (12), is ensured from inside the conduit (17).
30

3.- The process as claimed in either of claims 1 and 2, characterized in that heating of the bearing lip (18) to ensure its welding to the plate (12) is performed without introducing filler metal.
35

4.- The process as claimed in any one of the preceding claims, characterized in that heating of the bearing lip (18) to ensure its welding to the plate (12) is performed using an inert gas nonconsumable-electrode arc welding method.

5.- The process as claimed in any one of the preceding claims, characterized in that it includes a stage, applied to at least one part of the length of the member (10), involving machining of each longitudinal edge (16) of the stiffener (13) to form an internal bevel (24) on this edge, on the side of the bearing lip (18) facing the conduit (17).

6.- The process as claimed in any one of the preceding claims, characterized in that the weld bead (80) formed from outside the conduit (17) fills completely the space defined between the main surface (12A) of the plate, the external bevel (20) and the bearing lip (18).

7.- The process as claimed in any one of the preceding claims, characterized in that the bearing lip (18) is incorporated within the half of the stiffener (13) thickness (e) situated on the internal conduit (17) side.

8.- The process as claimed in any one of the preceding claims, characterized in that the distance (d) separating the stiffener internal lateral surface (13A), defined on the conduit (17) side, from the bearing lip (18) is between 20 and 40% of the stiffener (13) thickness (e).

9.- The process as claimed in any one of the preceding claims, characterized in that the bearing lip (18) features an internal lateral projection (28) on the conduit (17) side near to its sole (22).

10.- The process as claimed in claim 9, characterized in that the minimum height (T) of the projection (28) is between 0 and 8 mm.

11.- The process as claimed in either of claims 9 and 10 taken with claim 6, characterized in that a

hollow profile (30) is defined between the projection (28) and the internal bevel (24).

12.- The process as claimed in any one of the preceding claims, characterized in that the height (h) of the bearing lip (18) measured at the base of the external bevel (20) is between 6 and 12 mm.

13.- The process as claimed in any one of the preceding claims, characterized in that the width of the sole (22) is between 2 and 15 mm.